

**Epid 800: Health Care Epidemiology**  
**Fall 2006 Wednesdays, 4:30pm-6:10pm**  
**McGavran-Greenberg #1305**  
**DRAFT, AUGUST 23, 2006**

Course Instructor: Remy Coeytaux, MD, PhD [remy\\_coytaux@med.unc.edu](mailto:remy_coytaux@med.unc.edu), tel: 966-2596

Teaching Assistant: (Any volunteers?)

## OVERVIEW

The epidemiology of medical care applies the perspective and methods of epidemiology to practical problems of health care organization and delivery. This course will present an overview of the epidemiology of medical care, with emphasis on the origins, development, and epistemology of the field. We will discuss the development of this field and offer an opportunity for the direct application of epidemiological concepts and methods to the study of selected health services issues significant to contemporary public health policy. We will explore several themes:

- Theme I: What's in a name? Defining health care epidemiology
- Theme II: Measurement: Challenges in health care research
- Theme III: Which rate is right? Variation in access, practice, and outcomes
- Theme IV: What's the evidence? Changing and measuring change in health care

## TENTATIVE SCHEDULE

- 8/23/06**      **Course introduction: scope, format, participation, grading, selection of topics for discussion**  
Remy Coeytaux, Assistant Professor of Family Medicine.
  
- 8/30/06**      **The origins of health care data**  
Kathleen Jones-Vessey, Manager, Statistical Services Unit, State Center for Health Statistics, NC/DHHS, Division of Public Health– Vital Records;  
Sandra Greene, Senior Research Fellow, Sheps Center for Health Services Research – System level data  
Suzanne West, Clinical Associate Professor, Ob/Gyn Prescription/medication data
  
- 9/6/06**        **Introduction to the Epidemiology of Medical Care**  
Gordon DeFreise, former Director of the Sheps Center for Health Services Research
  
- 9/13/06**      **Decision and cost-effectiveness analyses in health care epi**  
Guest speaker: Evan R. Myers, MD, MPH, Professor and Chief, Division of Clinical and Epidemiological Research, Department of Obstetrics and Gynecology, Duke Medical Center
  
- 9/20/06**      **Examining the links in the causal pathway:**  
**An epidemiologic framework from access through outcomes**  
Remy Coeytaux  
Class Exercise: **Constructing causal models**

9/27/06      **Local variation of medical care and its measurement**  
                  **OR**  
                  **Real patients in real care settings: The challenges of practice-based research**  
                  **OR**  
*Risk Adjustment* **Measuring quality of care Roper**  
                  **OR**  
\* **The selection and measurement of medical care outcomes**  
                  **OR**  
**Evaluating the Efficacy, Effectiveness and Efficiency of Medical Care**  
                  **OR**  
                  **Assuring Equity and Coverage by Basic Health Care Services**  
                  **OR**  
                  **Risk Adjustment**  
                  **OR**  
                  **An orientation to HIPAA**  
                  **Investigator Panel: How will HIPAA influence research?**  
*GORDON DEFRISE*

10/4/06      **Research on Research**  
                  Ricardo Pietrobon, MD, PhD, MBA, Director, Duke Center for Excellence in Surgical Outcomes

\* 10/11/06    **Systematic evidence reviews: assembling the evidence**  
                  **OR: Evidence-based practice**  
                  Guest speaker: Kathleen Lohr, Chief Scientist, RTI International; Adjunct Professor, Health Policy and Administration, UNC

10/18/06    **Fall Recess begins at 5:00 p.m. (classes resume Monday, 10/23/06)**

10/25/06    TBA

11/01/06    **Clinical Epidemiology Topic TBA**  
                  David Ransohoff, MD

11/8/06     **Investigating disparities in health and health care**  
                  Guest speaker: Vijaya Hogan, Director, Curriculum on Health Disparities, UNC School of Public Health

11/15/06    **Case studies: Sources of disparities in health outcomes**  
                  Guest speaker: Jay Kaufman, Assistant Professor, Epidemiology Department, UNC

11/22/06    **Thanksgiving Break - no classes held**

**Final Presentations and Paper:**

11/29/06    **Papers Due**  
                  **Student Presentations**

12/6/06     **Student Presentations**  
                  **Semester classes end**

**EPID 800**  
**Health Care Epidemiology**

**Final Project**

Causal Model Due: October 4, 2006 by 5:00pm

Paper Due: November 29, 2006

Final Presentations: November 29, 2006 & December 6, 2006

**Objectives**

1. To construct a detailed causal model for a specific health outcome (preferably relevant to your thesis or dissertation interests) incorporating factors related to health care and health care organization.
  
2. To prepare a presentation and essay (final paper) that elaborate on a portion of your causal model. These products should have the goal of presenting a focused critique with a proposed methodologic approach to advancing research. For examples, projects may culminate in:
  - A focused review of the literature that demonstrates absent or insufficient investigation of a plausible linkage in your model that is related to health care.
  - A carefully crafted critique of common methodologic limitations in use of health care data in some portion of your model.
  - An opinion piece anchoring a new area of healthcare research (reflected in your model) to its historical roots.
  - A debate of the pros and cons of pursuing a research program endorsed by national organizations or leading scholars that relates to components of your pathway.

In each case the project must include your assessment of limitations, flaws, or challenges and potential solutions or responses that follow from your observations/critique. This is an invitation to exercise your intellect. Please rely on your own critical skills and resist the temptation to take up the observations of others.

The project is designed in a step-wise fashion to allow time for your ideas to be formulated over time and to facilitate feedback from the course instructors early in the process. Completing the course project will consist of the following parts:

### **Part I: Causal Model**

As in Objective 1 above, choose a research question that you are interested in exploring. Develop a detailed causal model for this question that incorporates health care factors. Take care to tightly define the outcome of interest. Pick a specific portion of your causal model to consider for your essay (final paper) and presentation. Briefly describe the intended focus of your project in writing and submit this with your model.

**The causal model and preliminary description of the topic of your essay are due on October 4, 2006 at 5:00 pm in the course mailbox outside of room 2107 (Epidemiology Department, 2<sup>nd</sup> Floor McGavran-Greenberg). Descriptions of your topic should not be longer than one single-spaced page of text.**

### **Part II: Essay (Final Paper)**

As in Objective 2 above, choose one aspect of your causal model on which to focus. The paper is required to be a *maximum* of 5 pages, double-spaced, with at least 11-point font, and 1-inch margins. **The paper is due at the beginning of class on November 29, 2006.**

### **Part III: Final Presentation**

Prepare an 8-minute presentation (to be followed by up to 4 minutes of questions from the class) on the information you presented in your final paper. Don't forget to show your causal model and specify the portion you will be discussing. You may use PowerPoint or overheads.

Class presentations will be on November 29 and December 6.

**CLASS ATTENDANCE IS MANDATORY FOR ALL PRESENTATIONS!**

## GRADING—EPID 800

As throughout the graduate program, grades will be assigned as honors, pass, fail, or incomplete. The following proportions reflect the relative weight that will be assigned to each component of participation in the course. “Honors” will be reserved for exemplary performance that includes demonstration of independent initiative in exploring topics beyond introductory level lectures and readings, depth of consideration and critique of conceptual issues, demonstration of incorporation of relevant new insights into one’s own research interests, and an “adult learner” style of contributing items of interest to the class.

In class/email list serve participation	10%
Questions for panels	20%
Mid-semester causal model	10%
Presentation	20%
Final paper	40%